

REMARKS

The indication of allowable subject matter in claims 2-7, 9, 10, 12-18 and 20 is acknowledged and appreciated. Accordingly, claim 5 has been rewritten into independent form. In view of the following remarks, it is respectfully submitted that all claims are in condition for allowance.

The Abstract has been objected to for using claim terminology. Enclosed herein is a replacement Abstract making the requested changes.

Claims 1, 8 and 11 stand rejected under 35 U.S.C. § 102 as being anticipated by Curtis et al. '978 ("Curtis"), and claims 1, 8, 11 and 19 stand rejected under 35 U.S.C. § 102 as being anticipated by both Hughes et al. '895 ("Hughes") and Clinkenbeard '527 ("Clinkenbeard"). These rejections are respectfully traversed for the following reasons.

Turning to Curtis, although it appears that the volume of the pipette may be measured based on sensed light components, it is respectfully submitted that Curtis does not disclose measuring volume based on a *change* in a sensed light component as embodied in the claims defining the present invention. Rather, a reference solution and sample solution are mixed and the measured light component *per se* is used, along with the optical pathlength, to determine the volume of the pipette (*see* Abstract). Turning to Clinkenbeard and Hughes, both disclose filling a sample cell until the light is completely reflected away from a sensor (*see, e.g.*, col. 4, line 58 – col. 5, line 13 of Clinkenbeard; and col. 7, lines 20-31 of Hughes).

In order to clarify the distinction between the present invention and cited prior art, each of independent claims 1, 8 and 19 have been amended to recite "(b) verifying ... based on a change over time in an output signal." In contrast, both Clinkenbeard and Hughes disclose sensing a **one-time discrete change** from sensing light to not sensing light whereby the irradiated light is completely reflected away from the sensor 30 and 36, respectively. Accordingly, the verification of the amount of solution in Clinkenbeard and Hughes does not rely on the rate of the change or the length of time of the change. Rather, the verification is based solely on the single determination that light is being sensed or not (e.g., ON/OFF), whereas the present invention can verify based on a change over time such as, for example, sensing a fixed or variable change lasting for a given period of time, or a rate of change, or a combination thereof, etc.).

As anticipation under 35 U.S.C. § 102 requires that each and every element of the claim be disclosed, either expressly or inherently (noting that "inherency may not be established by probabilities or possibilities", *Scaltech Inc. v. Retec/Tetra*, 178 F.3d 1378 (Fed. Cir. 1999)), in a single prior art device, *Akzo N.V. v. U.S. Int'l Trade Commission*, 808 F.2d 1471 (Fed. Cir. 1986), based on the forgoing, it is submitted that neither Curtis, Hughes, nor Clinkenbeard anticipate claims 1, 8 and 19, nor any claim dependent thereon.

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as claims 1, 8 and 19 are patentable for the reasons set forth above, it is respectfully submitted that all claims dependent thereon are also

patentable. In addition, it is respectfully submitted that the dependent claims are patentable based on their own merits by adding novel and non-obvious features to the combination.

For example, claims 21 and 22 both recite “wherein step (c) includes measuring the optical characteristic of the sample solution using *said* photosensor” (emphasis added) already used in step (a). Although Hughes appears to disclose using the same irradiated light for verifying the amount of solution and for measuring optical characteristics thereof, Hughes does not disclose using the same sensor (*see* Figure 7 illustrating the use of two sensors 36 and 40). Clinkenbeard is further removed in that it expressly discloses using entirely different light systems for verifying the amount of solution and for measuring optical characteristics (*see, e.g.*, col. 7, lines 40-45, Figure 4 for light system measuring optical characteristics, and, col. 5, line 1-13, Figure 3 disclosing light system for verification).

Based on all the foregoing, it is submitted that claims 1-9 and 11-22 are patentable over the cited prior art. Accordingly, it is respectfully requested that the rejections under 35 U.S.C. § 102 be withdrawn.

CONCLUSION

Having fully and completely responded to the Office Action, Applicants submit that all of the claims are now in condition for allowance, an indication of which is respectfully solicited. If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call Applicants' attorney at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper,

including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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